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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,790	03/30/2001	Ashok N. Rudrapatna	RUDRAPATNA 12-2	4989

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GREENBERG TRAURIG, LLP
885 3RD AVENUE
NEW YORK, NY 10022

EXAMINER

NGUYEN, JOSEPH D

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 09/25/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/821,790

Applicant(s)

RUDRAPATNA ET AL.

Examiner

Joseph D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 9-29, and 33-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumaki et al. (6,473,411).

Regarding claim 1, Kumaki et al. discloses a method of transmitting data (transferring datagram) to a wireless mobile device (abstract), said method comprising:
- determining at least one of speed, location or direction information for a mobile device (abstract), using said at least one of speed, location or direction information as a parameter to control a data rate (co. 17 lines 4-23, and col. 54 lines 42-50) for signal transmission from one or more base stations of a wireless system servicing said mobile device (abstract, and fig. 15).

Regarding claim 2, Kumaki further discloses, wherein said at least one of speed, location or direction information is used to determine which one of said base stations should transmit to said mobile device (abstract, and col. 39 lines 14-22).

Regarding claim 3, Kumaki further discloses, wherein said at least one of speed, location or direction information is used to determine what signal power a base station should use in its transmissions to said mobile device (col. 38 lines 30-67, and col. 41 lines 4-55).

Regarding claim 4, Kumaki further discloses, wherein said transmission signal power is at least a required signal power to transmit a signal to said mobile device (col. 17 lines 5-15, and col. 38 lines 38-67).

Regarding claim 5, Kumaki further discloses, wherein said at least one of speed, location or direction information is used to control the transmission of a first base station toward which said mobile station is moving by delaying (pause state), (col. 54 lines 34-50) transmission of data from said first base station to said mobile device until said mobile device is located close enough to said basic station such that a required signal power for transmission to said mobile device is less than or equal to a threshold signal power (abstract, col. 19 lines 56-67, col. 38 lines 30-67, col. 41 lines 31-39, col. 42 lines 49-57), and col. 54 lines 34-50).

Regarding claim 9, Kumaki further discloses controlling said base stations such that neighboring base stations use a soft handoff (col. 57 lines 7-14) during a data transmission when said mobile device is in a handoff region and is entering a cell of a base station having allocated not more than a predefined light load amount of the total R-F signal power (col. 38 lines 30-67, col. 73 line 56 thru col. 74 line 3).

Regarding claim 10, Kumaki further discloses controlling said base stations such that neighboring base stations use a soft handoff during a data transmission when said

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mobile device is in a handoff region and a base station servicing said mobile device has allocated at least a predefined heavy load amount of its total RF signal power (col. 38 lines 30-67, col. 73 line 56 thru col. 74 line 3).

Regarding claim 11, Kumaki further discloses controlling said base stations such that neighboring base stations use a soft handoff during a data transmission when said mobile device is in a handoff region and a base station servicing said mobile device is more heavily loaded than a base station region to which said mobile device is moving (co. 20 lines 43-62, col. 38 lines 30-67, col. 73 line 44 thru col. 74 lines 3).

Regarding claim 12, Kumaki further discloses delaying (pause state) transmission of data (col. 19 lines 56-67, and col. 54 lines 30-50) to said mobile device when it is not in the process of receiving a data transmission and when a base station assigned to transmit to said mobile device has allocated at least a predefined heavy load amount of its total RF signal power and a neighboring base station has allocated not more than a predefined light load amount of the total RF signal power (col. 38 lines 30-67, col. 41 lines 31-63, and col. 73 lines 43-63).

Regarding claim 13, Kumaki further discloses providing a transmission by a neighboring basic station to said mobile device when said mobile device is in a handoff region between said base station (abstract, col. 19 lines 56-67, fig. 19).

Regarding claim 14, Kumaki further discloses providing transmission of data to said mobile device by a neighboring base station when said mobile device is in a handoff region between a base station transmitting to it and, said neighboring base

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station has allocated not more than a predefined light load amount of the total RF signal power (col. 20 lines 24-62, col. 38 lines 30-67, and col. 73 line 56 thru col. 74 line 4).

Regarding claim 15, Kumaki further discloses providing a transmission signal power greater than a required signal power from a base station to said mobile device when said mobile device is moving towards a known coverage hole (col. 38 lines 30-67, col. 40 lines 24-41, col. 41 line 4-56, and col. 42 lines 49-57).

Regarding claim 16, Kumaki further discloses delaying (pause state) a data transmission (col. 54 lines 34-50) from a base station to said mobile device when said mobile device is moving towards a known coverage hole (col. 19 line 54 thru col. 20 line 62).

Regarding claim 17, Kumaki further discloses the delaying (pause state) transmission (col. 54 lines 34-50) to said mobile device when the remaining maximum delay time for transmission to said mobile device is not less than a predefined multiple of a time interval for when said basic station has allocated not more than a predefined light load amount of the total RF signal power (col. 19 line 56 thru col. 20 line 62, and col. 38 lines 30-67, and col. 54 lines 34-50).

Regarding claim 18, Kumaki further discloses providing a transmission signal to said mobile device when the remaining maximum delay time for transmission to said mobile device is less than a predefined multiple of a time interval for when said base station has allocated not more than a predefined light load amount of the total RF signal power (col. 19 line 56 thru col. 20 line 62, col. 38 lines 30-67, col. 41 lines 25-63, and col. 54 lines 34-50).

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Regarding claim 19, Kumaki further discloses determining said speed and location information for said mobile device (abstract, fig. 12-14).

Regarding claim 20, Kumaki further discloses using said speed and location information as a parameter to control said signal transmission from said one or more base stations of said wireless system servicing said mobile device (abstract, col. 24 lines 33-53).

Regarding claim 21, Kumaki further discloses determining said location and direction information for said mobile device (abstract).

Regarding claim 22, Kumaki further discloses using said location and direction information as a parameter to control said signal transmission from said one or more base stations of said wireless system servicing said mobile device (abstract).

Regarding claim 23, Kumaki further discloses determining said speed and direction information for said mobile device (abstract).

Regarding claim 24, Kumaki further discloses using said speed and direction information as a parameter to control said signal transmission from said one or more base stations of said wireless system servicing said mobile device (abstract).

Regarding claim 25, Kumaki discloses a method of transmitting data from a wireless mobile device to a base station (abstract), said method comprising:
determining at least one of speed, location or direction information for a mobile device,
using said at least one of speed, location or direction information as a parameter to control a data rate for signal transmission to one or more base stations of a wireless system from said mobile device (abstract).

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Regarding claim 26, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 27, this claim is rejected for the same reason as set forth in claim 3.

Regarding claim 28, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 29, this claim is rejected for the same reason as set forth in claim 5.

Regarding claim 33, this claim is rejected for the same reason as set forth in claim 9.

Regarding claim 34, this claim is rejected for the same reason as set forth in claim 10.

Regarding claim 35, this claim is rejected for the same reason as set forth in claim 11.

Regarding claim 36, this claim is rejected for the same reason as set forth in claim 12.

Regarding claim 37, this claim is rejected for the same reason as set forth in claim 13.

Regarding claim 38, this claim is rejected for the same reason as set forth in claim 14.

Regarding claim 39, this claim is rejected for the same reason as set forth in claim 15.

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Regarding claim 40, this claim is rejected for the same reason as set forth in claim 16.

Regarding claim 41, this claim is rejected for the same reason as set forth in claim 17.

Regarding claim 42, this claim is rejected for the same reason as set forth in claim 18.

Regarding claim 43, this claim is rejected for the same reason as set forth in claim 19.

Regarding claim 44, this claim is rejected for the same reason as set forth in claim 20.

Regarding claim 45, this claim is rejected for the same reason as set forth in claim 21.

Regarding claim 46, this claim is rejected for the same reason as set forth in claim 22.

Regarding claim 47, this claim is rejected for the same reason as set forth in claim 23.

Regarding claim 48, this claim is rejected for the same reason as set forth in claim 24.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-8, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumaki et al. (6,473,411) in view of Kanterakis et al. (6,324,207).

Regarding claim 6, Kumaki further discloses, transmitting data from said first base station to said mobile device at a first data rate using said required signal power and transmitting data at a second data rate using a signal power. However, Kumaki does not specifically disclose the transmitting data require signal power greater than said required signal power.

Kanterakis et al. teaches the transmitting data require signal power greater than said required signal power (col. 20 line 50 thru col. 21 line 5). Therefore, It would have been obvious to one skilled in the art at the time of the invention was made to modify Kumaki's system with the teaching of Kanterakis of signal power greater than required signal power in order to keep the transmission data rate constantly high to make customer happy.

Regarding claim 7, Kumaki discloses transmitting data. However, Kumaki does not specifically disclose increase data rate from the first data rate to second data rate when transmission signal power is greater than require power.

Kanterakis teaches increasing rate in transmission from first data rate to second data rate when transmission signal power is greater than said required signal power

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(col. 20 line 50 thru col. 21 line 5). Therefore, It would have been obvious to one skilled in the art at the time of the invention was made to modify Kumaki's system with the teaching of Kanterakis of increasing data rate in order to shorten the time of transmission to keep customer happy.

Regarding claim 8, Kumaki further discloses transmitting data from said first base station to said mobile device at said second data rate when said mobile device is moving away from said first base station cell and toward a second base station which has allocated at least a predefined heavy load amount of its total RF signal power (col. 38 lines 30-67, col. 54 lines 34-50).

Regarding claim 30, this claim is rejected for the same reason as set forth in claim 6.

Regarding claim 31, this claim is rejected for the same reason as set forth in claim 7.

Regarding claim 32, this claim is rejected for the same reason as set forth in claim 8.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Rudrapatna et al. reference (6,052,598) discloses a method of transmitting data comprising: velocity and direction, measuring the signal strength against threshold between mobile station and the base station of the cell in which it is located and the base stations of the neighboring cells, the time when the mobile unit will

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require handover to a neighboring cell, the data rate, the power levels of the mobile station at suitable intervals are measured.

6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

703 308-9051, (for formal communication intended for entry)

Or:

(703) 305-9509 (for informal or draft communications, please label

"PROPOSED" OR "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington. VA. sixth floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D Nguyen whose telephone number is (703) 605-1301. The examiner can normally be reached on 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Joseph Nguyen



Sept. 15, 2003



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600